

## REMARKS

This is intended as a full and complete response to the Final Office Action dated April 24, 2005, having a shortened statutory period for response set to expire on July 25, 2005. Claims 4, 6-9, 11-13, 16-22, 25-28, 31, 32, 34-36 and 39-42 remain pending in the application and stand rejected. Please reconsider the claims pending in the application for reasons discussed below.

Claims 4, 6, 11 and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Norman* (U.S. 4,431,524). The Examiner states that *Norman* discloses a process of contacting the oil with an aqueous solution of a basic salt; treating the resulting mixture to separate water from the oil; mixing that separated oil with a glycol; and removing contaminants from the glycol/oil mixture.

Applicant respectfully traverses the rejection on grounds that *Norman* does not teach, show, or suggest the claimed invention. *Norman* discloses a process of contacting the oil with an aqueous solution of a basic salt to precipitate metal contaminants, polar compounds and/or particulates (i.e. "solid contaminants"); treating the separated, solid-free mixture to remove water from the oil; mixing that dehydrated oil with a glycol; and removing contaminants from the glycol/oil mixture. In other words, the process of *Norman* separates the bulk water and precipitated solid contaminants from the oil prior to mixing the dehydrated/solid-free oil with glycol. (See *Norman* at col. 3, lines 21-22 and col. 5, line 16 through col. 6, line 49.) Accordingly, the base compound is removed from the oil prior to the glycol/solvent addition. (See *Norman* at col. 3, lines 19-23.) Therefore, at the very least, *Norman* does not teach, show, or suggest adding a phase transfer catalyst to the at least partially dehydrated used oil mixture comprising used oil and base compound to provide a used oil mixture comprising used oil, phase transfer catalyst, and base compound, and removing contaminants from at least a portion of the used oil mixture comprising used oil, phase transfer catalyst, and base compound, as recited in claim 1 as well as those dependent therefrom. For at least this reason, withdrawal of the rejection and allowance of claims 4, 6, 11 and 12 is respectfully requested.

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Claims 7-9, 13, 16-22, 25-28, 31, 32, 34-36 and 39-42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Norman* (U.S. 4,431,524) in view of WO 97/00928. The Examiner states that it would have been obvious "to have modified the process of *Norman* by distilling to remove contaminants at any appropriate set of conditions as suggest by the WO reference because distilling will remove contaminants from a mixture similar to the mixture present in the *Norman* process and therefore distilling would be expected to be an effective separation method In the process of *Norman*." Also, the Examiner states that it would have been obvious "to have modified the process of *Norman* by treating the claimed used oils because such oils are chemically and physically similar to the oils disclosed by *Norman* and therefore would be expected to be effectively treated in the process of *Norman*."

Applicants respectfully traverse the rejection on grounds that the Examiner has not established a *prima facie* case of obviousness. To establish *prima facie* obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. See *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Further, the teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, not in the applicants' disclosure. See M.P.E.P. § 2143, citing *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). Still further, the examiner must *particularly* identify any suggestion, teaching or motivation from *within* the references to combine the references (emphasis added). See *In Re Dembiczak*, 50 USPQ2d 1614 (Fed. Cir. 1999). The mere recitation of a combination of references does not amount to particularly identifying a suggestion, teaching, or a motivation to combine the references. Moreover, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

*Norman* has been discussed and distinguished above. The WO reference or the US equivalent, U.S. Patent No. 6,072,065 to *Chavez*, also has been discussed and distinguished in previous correspondence to the Examiner. A combination of these references does not teach, show, or suggest all of the claimed limitations. Further, the examiner has not particularly identified any suggestion, teaching or motivation from

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either *Norman* or *Chavef* to combine the references. The mere recitation of a combination of *Norman* and *Chavef* does not amount to particularly identifying a suggestion, teaching or a motivation to combine the references. In fact, no suggestion, teaching or motivation is provided in the references because not one mixture of *Norman* is similar, either physically or chemically, to any one mixture of the WO reference (*Chavef*), contrary to the Examiner's assertion.

As noted in previous correspondence to the Examiner, the WO reference (the US equivalent is "*Chavef*" U.S. Patent No. 6,072,065) discloses a four step process that includes a first preliminary distillation step (step (a)); an alkaline treatment step (step (b)); water wash followed by settling to recover the oil phase (step (c)); and distillation of the recovered oil phase (step (d)). (*Chavef* at col. 3, lines 11-25.) The preliminary distillation step (step (a)) is a two step distillation process to remove water and the heavy gasoline fractions in the first distillation step at atmospheric pressure and to recover a gas-oil fraction and vacuum distillate in the second distillation step under a reduced pressure. (*Chavef* at col. 3, lines 32-45 (emphasis added).) Step (b) then adds an alkaline reactant in the presence of a solvent to the previously dehydrated and separated distillate of Step (a). (*Chavef* at col. 3, lines 61-63.) The separated, gas-oil fraction is recovered. Step (c) then utilizes a water wash to remove the solvent and alkaline from the vacuum distillate. (*Chavef* at col. 4, lines 40-47.) The resulting, water washed oil phase is then distilled using a two step distillation process or step (d)). (*Chavef* at col. 5, lines 8-15.)

Conversely, *Norman* discloses a process of contacting the oil with an aqueous solution of a basic salt to precipitate metal contaminants, polar compounds and/or particulates (i.e. "solid contaminants") (step (a)). The separated, solid-free and base compound-free mixture is then treated to remove water from the oil (step (b)). That dehydrated oil is mixed with a glycol and contaminants are removed from the glycol/oil mixture (step (c)).

Accordingly, not one mixture of step a, b, or c of *Norman* is similar, either physically or chemically, to any one mixture of step a, b, c, or d of the WO reference (*Chavef*), contrary to the Examiner's assertion. Therefore, the Examiner has not established a *prima facie* case of obviousness, and a combination of the references

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*Chavet* and *Norman* does not teach, show, or suggest the claimed invention. For at least this reason, withdrawal of the rejection and allowance of the claims is respectfully requested.

Furthermore, the used oil of *Norman* is not similar, either physically or chemically, to the used oil of *Chavet*. According to *Norman*,

the term 'used industrial oils' is used... to mean used industrial oils ... for use in non-motor vehicle applications in industrial or power producing plants. This term does not, however, mean used crank case oil from motor vehicles such as, for example, cars, trucks and locomotives, as well as gear oils, automatic transmission fluids and other functional fluids in which the major constituent is an oil of lubricating viscosity."

*Norman* at col. 1, lines 24-27; col. 3, line 66 - col. 4, line 2. Conversely, the term "used oils" in *Chavet* "designates an oil or mixture of oils in variable proportions originating from various origins in particular from industrial applications. As this is well known, industrial or engine lubricant oils contain various additives used to provide the required specific characteristics for the contemplated applications." *Chavet* at col. 1, lines 8-14. As such, the only common element, used oil, of the mixtures disclosed in both *Chavet* and *Norman*, is not the same. As such, the Examiner has not shown that an artisan of ordinary skill in the art at the time of invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would select the various elements from the prior art and combine them in the claimed manner. See *In re Rouffet*, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998). Therefore, the Examiner has not established a *prima facie* case of obviousness, and withdrawal of the rejection and allowance of the claims is respectfully requested.

Claims 25-28, 31, 32, 34-36, 41 and 42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 97/00928. The Examiner states that the WO reference discloses a process of contacting the oil with an alkaline reactant in the presence of a solvent and following the contacting, contaminants are removed from the oil by distillation. The Examiner further asserts that the water-washing step of the WO reference "only removes alkaline reactant in excess, it appears as if a mixture as claimed is distilled in the process of the WO reference."

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Applicants respectfully traverse this rejection. The WO reference does not teach, show, or suggest distilling a mixture comprising used oil, base compound and phase transfer catalyst (or glycol), as required in base claims 25 and 31 and those dependent therefrom. Contrary to the Examiner's assertion, the WO reference/*Chavet* very clearly states that the water wash step removes all of the base compound. The WO references states that the water wash step (step (c)) is essential to remove (1) any alkaline reactant in excess, (2) the alcohol if used as a solvent and (3) all water soluble by-products resulting from the alkaline reacted contaminants. (See *Chavet* at col. 4, lines 43-47.) There is no other base compound. The amount of base compound added equals the amount reacted (i.e. "the water soluble by-products resulting from the alkaline reacted contaminants") and the excess. If the base compound does not react, it is excess. Both of which are removed during the water wash step. Therefore, the WO reference/*Chavet* does not teach, show, or suggest distilling a mixture comprising used oil, base compound and phase transfer catalyst (or glycol), as required in base claims 25 and 31 and those dependent therefrom.

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the primary references cited in the Final Office Action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this Final Office Action.

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In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the claimed invention. Having addressed all issues set out in the Final Office Action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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